## A NESTING OF THE ROSE-BREASTED GROSBEAK.

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In the spring of 1914 I watched a nesting of the Rose-breasted Grosbeak (Zamelodia ludoviciana) in West Roxbury, Mass., and though my notes are not so complete and detailed as I could wish, they are perhaps worth recording, and I offer them for what they are worth.

On May 23 I observed a female Grosbeak building in the top of a pear tree which stands about twenty feet from a veranda of my house. The nest, which was only just beginning to take shape, was in plain sight from our upper windows. From that time till incubation began the male bird was never seen at the nest, though he often sang near by. I think he took no part in the building. The female had a habit of uttering a few high-pitched and faint notes, rather prolonged, ee ee ee, while on and about the nest. They were, perhaps, addressed to her mate, though he seemed never to respond in any way, and, in fact, during this period of nest-building I never saw him near when these notes were uttered. It is hard to see of what value such a habit could be to a bird, for the notes would serve only to betray the presence of the nest; but they impressed me as a sort of crooning of satisfaction over the preparations going forward, - though the word crooning would not apply to the quality of the notes, which were high-pitched, as stated.

On May 28 I saw the bird moving about on the nest and judged that it was completed. As I did not go up to the nest at this period, I do not know just when the eggs were laid, nor did I note just when incubation began, but on June 7 the birds had been sitting for several days. The male assisted his mate in the work of incubation, but the female appeared to do most of it. The male took his cares lightly and sang habitually while incubating. The song thus given was shorter and less loud than the ordinary song of the species, but, though somewhat subdued in tone, it was not identical with the very soft and subdued song which is sometimes heard from

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this species and which is, I think, generally if not always more prolonged than the ordinary song. It began with three or four repetitions of a phrase like  $t\check{i}'wee$  and concluded with a warble. The female *hicked* a good deal on the nest, but for some time I did not hear what I have called the "crooning" notes.

On the afternoon of June 14 I watched the nest for a time from the ground below and at a short distance.

At 2.20 the male sang at the nest and was relieved by the female.

At 2.33 the female called *ee ee ee* (the "crooning" note) and was relieved by the male.

At 2.42 the male sang.

At 2.43 he sang again and was relieved by the female. The male called *ee ee ee* as he flew off. I think this was the only time I heard this note uttered by the male.

At 3.07 the female flew off with *ee ee ee.* Probably the male approached the nest at the same time and without my seeing him from where I sat, for, after waiting some time for him to appear, I went to the upper veranda and from there could see him perched on the edge of the nest, shading it with wings half spread. This was at 3.29.

At 3.34 the male sang and was promptly relieved by the female. A single *ee* was uttered by one of them. The female at once began feeding young, and this was the first intimation I had had that the young had hatched. They must have hatched that day, for on the day before, and I think on the morning of that day (June 14), the parents appeared to be still sitting.

On June 18 I noted that the young, of which there were three, were covered, or partly covered, with a whitish down which stood out from the body and up from the top of the head. They had a fine, high, rather sweet  $h\bar{u}'ee$  with a slightly husky quality, which they uttered while being fed. I have heard this same note, but louder, uttered by a fully fledged bird, possibly an adult female (July 29, 1908).

On June 20 the note of the young was louder and usually a plain, unmodulated  $h\bar{u}$ , though occasionally there was a suggestion of the rise in pitch at the end. Once or twice I heard a quavering  $h\bar{u}' w i \cdot w i$ . The young then cried before the mother came to the nest as well as while being fed. The female took the entire care of the young, and after the 14th, when the young were just hatched, I never saw the male at the nest. For several days he had sung but little, but on the 20th he recovered his volubility and sang long and loud and frequently. On the next day he was still voluble.

On June 22 I went up to the nest to band the young birds. One of them flopped out as I reached up to the nest from the ladder, and fell fluttering to the ground, where it landed on its back and lay motionless. When I reached it and picked it up it remained motionless in my hand, but did not appear to be dead or dying, and I concluded that it was "playing possum." I banded it and put it back in the nest, where it stayed quietly. Another of the young, which I banded, also "played possum." I could not find the third young bird by feeling about,— the nest was above my head,— and I think it may have disappeared, or possibly it was underneath the other two. I refrained from poking about in the nest much for fear of hurting the young.

While I was at work at the nest, the female kept up an anxious *hick*-ing near by and at one time uttered a rapid succession of frantic *hicks* within a few feet; but the male sang cheerfully through it all and appeared not to notice what was going on. One may imagine, of course, that he was merely trying to reassure his mate or keep up her courage. He was especially voluble that morning, particularly early in the morning, before I went up to the nest, when his songs were unusually long and succeeded one another with only very short rests between.

On June 24, two days later, the male, which had been as voluble as ever the day before, was not heard at all, and as the nest appeared to be deserted, I went up to it and found it empty except for a dead young one, one of those that I had banded and probably the one that had fallen. Later I heard a surviving young one calling about a hundred yards off, and saw the mother, which answered her offspring with the familiar *hick* note.

I took the nest, which hung together remarkably well, considering the apparent looseness of its construction, and was easily removed intact. It is difficult to assign any precise dimensions to it, on account of its straggling character, but it may be called eight inches in external and three and one-half inches in internal diameter, and about four and one half inches deep externally and two inches internally. It was composed of slender twigs of various kinds, the exterior largely dead hemlock twigs, which from their roughness held together well and kept the structure intact. The lining was of finer twigs, largely spirae from the garden. The nest was set in a crotch near the top of the pear tree and about seventeen and one half feet from the ground.

## Summary.

Summarizing these observations, we find that the female bird built the nest, apparently without help from her mate; that the male assisted in incubation and habitually sang while on the nest, the song seeming to be sometimes, if not always, a signal to the female that he was ready to be relieved; that the male appeared to take no part in the feeding of the young; that the female had a special note which she uttered when about the nest and sometimes, apparently, as a signal that she was ready to be relieved from her duties,— a note that was rarely uttered by the male; that the young, as is the case with most birds, had a peculiar note of their own, a food-call, which changed as they developed; and, finally, that young Rose-breasted Grosbeaks should be banded not later than a week after hatching if the risk of frightening them out of 'the nest is to be avoided.